

CLAIMS

- 1 1. A method of updating a common data source of data items and associations among said
2 data items, wherein said common data source being accessible by more than one client
3 storing copies of at least two of said data items and at least one association between at
4 least two data items, and wherein at least one of said data items is a thought capable of
5 being interactively modified, created, or interconnected by at least one of said clients,
6 comprising:
7 receiving a request from a client to modify a data item; and
8 updating said data source according to said request.
- 2 2. The method of claim 1, further comprising:
sending a confirmation of said updating to said client.
- 3 3. The method of claim 1, further comprising:
modifying said copy of said data item.
- 4 4. The method of claim 1, in which said receiving step is done any time one of said more
than one clients operates on said data item.
- 1 5. The method of claim 1, in which said receiving step is done any time one of said more
2 than one clients modifies said data item.
- 1 6. The method of claim 1, in which said receiving step is done any time one of said more
2 than one clients deletes said data item.
- 1 7. The method of claim 1, in which said receiving step is done any time one of said more
2 than one clients activates a new thought.
- 1 8. The method of claim 1, in which said receiving step is done any time one of said more
2 than one clients creates a new thought.

- 1 9. The method of claim 1, in which said receiving step is done any time one of said more
2 than one clients creates a new interconnection between at least two of said thoughts.
- 1 10. The method of claim 1, in which said receiving step is done any time one of said more
2 than one clients operates on said data item, and further comprising:
3 barring other of said more than one clients from modifying said data item between
4 the time the request is received from said client and the confirmation is sent to
5 said client.
- 1 11. A method for a first client to update a common data source that is accessible by a second
2 client, said common data source having data items and associations between data items,
3 said first client storing a local version of said common data source, comprising:
4 recording modifications made to said local version;
5 sending said recorded modifications to said common data source; and
6 storing changes in said associations with respect to said modifications.
- 1 12. A method for a common data source that is accessible by more than one client to update
2 at least one of said clients that stores a local version of said common data source, said
3 common data source having data items and associations between data items, comprising:
4 detecting data items missing from said local version;
5 sending said missing data items to said local version; and
6 updating said missing data items and associations with said missing data items in
7 said local version.
- 1 13. The method of claim 12 further comprising:
2 detecting whether more than one of said clients each attempted to send to the
3 common data source the same data item under different identifiers.
- 1 14. The method of claim 12 further comprising:
2 detecting whether more than one of said clients each attempted to send to the
3 common data source different data items under the same identifier.

- 1 15. An apparatus for a client to modify the display of indicia of at least a first data item and a
2 second data item and at least one association between those two data items, comprising:
3 a first repository storing said first data item;
4 a second repository storing said second data item; and
5 a third repository storing said association between said first data item and said
6 second data item.
- 1 16. The apparatus of claim 15, further comprising:
2 an intermediary receiving a request from said client and providing interface to
3 said first repository and said second repository.
- 1 17. The apparatus of claim 16, wherein said intermediary causes said display to modify.
- 2 18. The apparatus of claim 16, wherein said intermediary addresses said request to said first
3 and second repositories with respect to said first and said second data items, respectively.
- 4 19. The apparatus of claim 17, further comprising:
5 information that is sent to said intermediary from said first repository or said
second repository relevant to whether the requested modification requires the
display of graphic representations of additional data items associated with said
first data item or said second data item, respectively.
- 1 20. The apparatus of claim 17, further comprising:
2 information that is requested from said third repository relevant to whether the
3 requested modification requires the display of any associations between any data
4 items from the first repository with any data items from the second repository.
- 1 21. An apparatus for a client to modify the display of indicia of at least a first data item and a
2 second data item and at least one association between those two data items, comprising:
3 a first server storing said first data item and a record of said at least one
4 association; and

5 a second server storing said second data item and a record of said at least one
6 association.

1 22. The apparatus of claim 21, further comprising:

2 a request to said first server and said second server for information relevant to
3 modifying said display.

1 23. A method of associating a display of more than one items of content in conjunction with
2 a display of an indication of a single data item, comprising:

3 creating a record of an identity of said data item and an identity of each of said
4 more than one items of content with reference to said identity of said data item;
5 referencing said record when said data item is selected; and
6 displaying indicia of said more than one items of content.

1 24. A method for conveniently emphasizing the display of secondary relationships among
2 items of data comprising:

3 displaying a first item of data; and

4 at least one primary relationship to a second item of data; and

5 at least one secondary relationship between said second item of data and a third
6 item of data; and

7 displaying emphasis upon said second relationship and said third item of data in response
8 to interaction with said second item of data.

1 25. The method of claim 24 in which said emphasis is displayed by reducing the emphasis
2 displayed with respect to said primary item of data, and said primary relationship.

1 26. The method of claim 24 in which said emphasis is displayed by increasing the emphasis
2 displayed with respect to said secondary relationship and said third item of data.